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 * Pacific Gas & Electric Co.
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SUBJECT: "Rept on Discharge Monitoring at Diablo Canyon Power Plant During Jul 1989."

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Pacific Gas and Electric Company

Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, CA 93424
805/595-7351

August 18, 1989



Mr. William Leonard, Executive Officer
California Regional Water Quality Control Board
Central Coast Region
1102-A Laurel Lane
San Luis Obispo, California 93401

Dear Mr. Leonard:

Discharge Monitoring and Reporting Program
Diablo Canyon Power Plant -- NPDES No. CA0003751

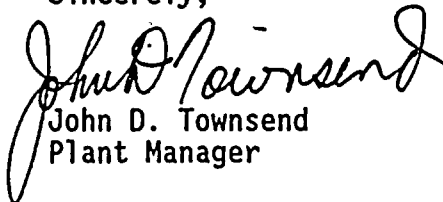
The monthly report for July 1989 of the Diablo Canyon Power Plant Discharge Monitoring Program, in accordance with Order 85-101, NPDES No. CA0003751 is enclosed.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. The results of the influent and effluent monitoring presented are the observed results of the measurements and analyses required by the monitoring program, and is neither an assertion of the adequacy of any instrument reading or any analytical result, nor an endorsement of the appropriateness of any analytical or measurement procedure. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have further questions, please contact Mr. Donald D. Malone of my staff at (805) 595-4859.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,


John D. Townsend
Plant Manager

JDT:af

Enclosure

8908300323 890731
PDR ADOCK 05000275
R PNU

IEP5
11



Handwritten marks and scribbles in the top right corner, including what appears to be the number '2' and some illegible characters.

cc: Chief, Environmental Services Division
California Department of Fish and Game
Resources Building
1416 Ninth Street
Sacramento, California 95814

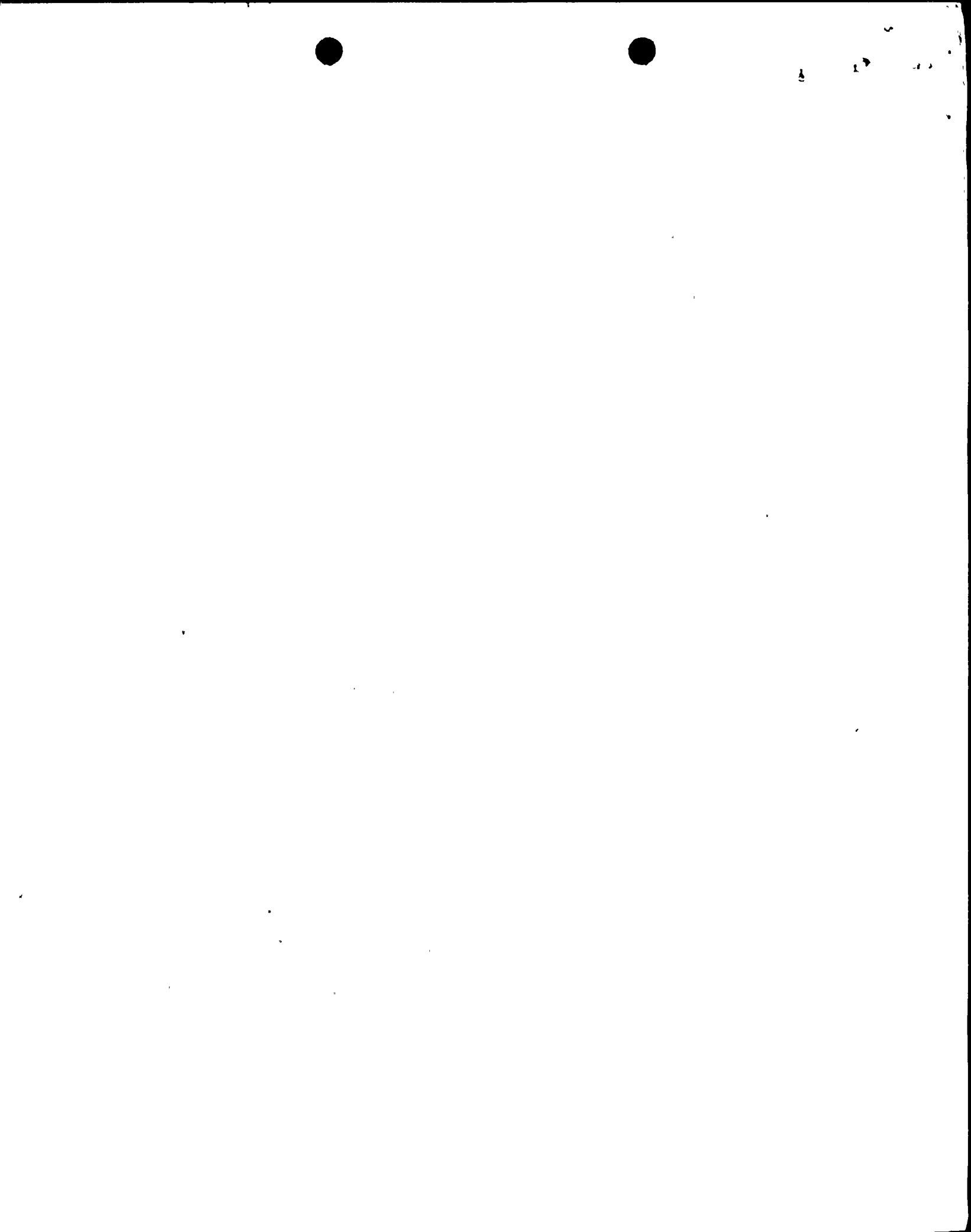
Regional Administrator, Region IX
Environmental Protection Agency
215 Fremont Street
W-4-2, Attention: Tom Cremar
San Francisco, California 94105

Regional Administrator
U. S. Nuclear Regulatory Commission
Region 5
1450 Maria Lane, Suite 210
Walnut Creek, California 94596-5368

✓ Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Chief, Marine Resources Division
California Department of Fish and Game
Resources Building
1416 Ninth Street
Sacramento, California 95814





PACIFIC GAS & ELECTRIC COMPANY
NUCLEAR PLANT OPERATIONS

REPORT ON
DISCHARGE MONITORING AT
DIABLO CANYON POWER PLANT
DURING THE MONTH OF
JULY 1989



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2

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OVERVIEW

- A. During the month of July, discharges occurred from Discharge Paths 001 (once through cooling water), 001A, 001B, 001D, 001E, 001F, 001G, 001H, 001J, 001L, 001M, 001N, 001P, and 002 through 004. No discharges occurred from Discharge Paths 001C, 001I, 001K, and 005 through 013.
- B. In all cases, chemical, radiochemical, and toxicity analyses were performed in accordance with chemical analysis procedures contained in the Diablo Canyon Power Plant, Units 1 and 2 Plant Manual, Volume 8, by State approved laboratories, or laboratories meeting the requirements specified in the California Regional Water Quality Control Board Central Coast Region "Standard Provisions and Reporting Requirements" dated January 25, 1985. Receiving water monitoring was performed in accordance with approved biological and oceanographic procedures.

SUMMARY OF MONITORING PROGRAM

A. Monitoring of Plant Influent and Effluent

1. The results of the July plant influent and effluent monitoring are reported in Appendix 1.
2. A static bioassay of Discharge 001 was performed July 10, 1989. (Appendix 2).

B. Monitoring of Receiving Waters

1. Ecological Studies at Diablo Canyon

Ecological studies in the vicinity of Diablo Cove, referred to as the Diablo Canyon Marine Environmental Monitoring (MEM) Program, continue.

2. Sediment Analysis

Sediment sample analysis is performed and the results are reported in September.

3. Aerial Photography of Kelp Beds

Aerial photography (infrared film type 2443) of kelp beds in the vicinity of Diablo Canyon was taken June 29, 1989. Color transparencies of the photos are included in Appendix 3 (Regional Board copy only).

4. Surface Water Temperature

Surface water temperatures are reported every other month.

5. Stratified Water Temperatures

Stratified water temperatures are measured in February, June, and October.



6. Dissolved Oxygen and pH of Receiving Waters

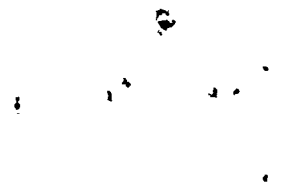
Monitoring of pH and dissolved oxygen is scheduled in February, June, and October.

7. Incident Light Measurements

Incident light measurements are reported quarterly in reports submitted in January, April, July, and October.

8. In situ Bioassay

Results of the Mussel Watch program will be reported to the Board directly from the California Department of Fish and Game in their periodic report for this program.



APPENDIX 1
Influent and Effluent Monitoring
July 1989



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
1102A LAUREL LANE
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424
PAGE (M) 1

FACILITY I.D.
3 402003001

YEAR/ MO / DAY
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YEAR/ MO / DAY
ENDING 89/07/31

STATE CODE
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STATION ANALYSIS UNITS SMPL TYPE FREQ.	INFLUENT TEMPERATURE DEGREES F METERED CONTINUOUS	EFFLUENT 001 TEMPERATURE DEGREES F METERED CONTINUOUS	EFFLUENT 001 FLOW MGD RECORDED DAILY	INFLUENT pH PH UNITS GRAB MONTHLY	EFFLUENT 001 pH PH UNITS GRAB MONTHLY	EFF 001P=>003 pH PH UNITS GRAB WEEKLY	EFFLUENT 002 pH PH UNITS GRAB MONTHLY	EFFLUENT 003 pH PH UNITS GRAB MONTHLY
--	---	---	--------------------------------------	-----------------------------------	---------------------------------------	---------------------------------------	---------------------------------------	---------------------------------------

JULY								
1	51.6	71	2487					
2	50.5	69.3	2487					
3	50.6	69.7	2487					
4	50	69.1	2487					
5	49.8	69	2487					
6	51.8	71.8	2487					
7	54.3	74.1	2487					
8	54.2	73	2487					
9	54.5	73.4	2487					
10	55.5	74.8	2487					
11	55.5	75.1	2487					
12	55	74.5	2487				8.04	7.97
13	53.3	72.8	2487	7.89	7.56			
14	51.5	71.1	2487					
15	50	69.1	2408					
16	50.4	64.4	1966					
17	53.3	68.3	1863					
18	52	67.3	1863					
19	50.4	65.4	1863					
20	49.8	64.7	1863					
21	51.5	63.7	2382					
22	52.4	68.5	2487					
23	52.3	69.4	2487					
24	52.4	69.3	2487					
25	52.8	70.9	2487					
26	52	71.4	2487					
27	51.8	71.5	2487					
28	52.6	72.2	2487					
29	51.9	71.6	2487					
30	52.7	72.3	2487					
31	51.5	71.3	2487					

MONTHLY AVG	52.2	70.3	2383.7	NO DISCHARGE				
MONTHLY HIGH	55.5	75.1	2487.0					
MONTHLY LOW	49.8	63.7	1863.0					

TIMES EXCEEDED	NO LIMIT	MAXIMUM = 0	MAX 2760 = 0	NO LIMIT	MIN 6.0 = 0	MIN 6.0 = 0	MIN 6.0 = 0	MIN 6.0 = 0
TIMES EXCEEDED		INTAKE PLUS			MAX 9.0 = 0	MAX 9.0 = 0	MAX 9.0 = 0	MAX 9.0 = 0
TIMES EXCEEDED		22 DEGREES (**)						

REMARKS: (*) Number of Samples taken during the day. (**) Except During Demusseling.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE
John Kreneg 8/17/89



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CALIFORNIA REGIONAL WATER QUALITY
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DISCHARGE SELF MONITORING REPORT

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ENDING 89/07/31

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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 004 pH MONTHLY	INFLUENT TURBIDITY NTU GRAB MONTHLY	EFFLUENT 001 TURBIDITY NTU GRAB MONTHLY	EFFLUENT 001 OIL & GREASE mg/l GRAB MONTHLY	EFFLUENT 001F OIL & GREASE mg/l GRAB MONTHLY	EFFLUENT 001N OIL & GREASE mg/l GRAB MONTHLY	EFF001P=>003 OIL & GREASE mg/l GRAB WEEKLY	EFFLUENT 001N SETTL SOLIDS mg/l GRAB WEEKLY
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JULY								
1								
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7							<3	<0.1
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13			2.8	2.7	<3			<0.1
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18								<0.1
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20								
21								
22								
23								
24	7.92							
25								
26								
27								
28								<0.1
29								
30								
31								

MONTHLY AVG	NO DISCHARGE							<0.1
MONTHLY HIGH								<0.1
MONTHLY LOW								<0.1

TIMES EXCEEDED MIN 6.0 =0	NO LIMIT	NO LIMIT	NO LIMIT	NO AVG 15 =0	NO AVG 15 =0	NO AVG 15 =0	NO AVG 1.0 =0
TIMES EXCEEDED MAX 9.0 =0				D MAX 20 =0	D MAX 20 =0	D MAX 20 =0	D MAX 3.0 =0
TIMES EXCEEDED							

REMARKS: (*) Number of Samples taken during the day.

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JAMES D. SHIFFER

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John R. Krenn 8/17/89



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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001 T NF RESIDUE mg/l 1st FLTR GRAB MONTHLY	EFFLUENT 001 T NF RESIDUE mg/l 2nd FLTR GRAB MONTHLY	EFFLUENT 001 T NF RESIDUE mg/l NET GRAB MONTHLY	EFFLUENT 001 T NF RESIDUE mg/l 1st FLTR GRAB MONTHLY	EFFLUENT 001 T NF RESIDUE mg/l 2nd FLTR GRAB MONTHLY	EFFLUENT 001 T NF RESIDUE mg/l NET GRAB MONTHLY	EFFLUENT 001 T NF RESIDUE mg/l GRAB MONTHLY	EFFLUENT 001 T NF RESIDUE mg/l GRAB MONTHLY
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
													22	20	2																

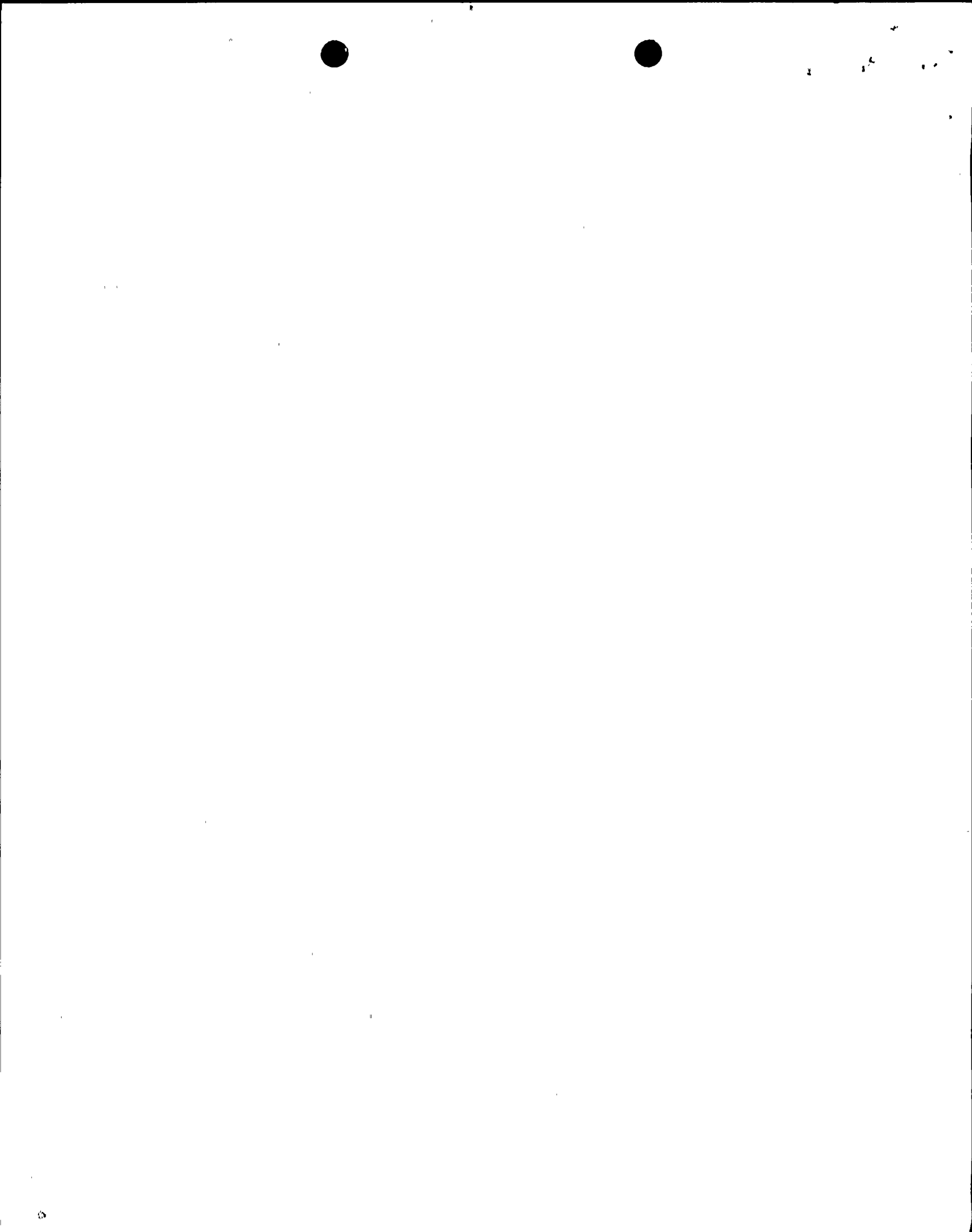
MONTHLY AVG	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE
MONTHLY HIGH				
MONTHLY LOW				

TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO AVG 30 =0	NO AVG 30 =0	NO AVG 30 =0
TIMES EXCEEDED						D MAX 100 =0	D MAX 100 =0	D MAX 100 =0
TIMES EXCEEDED								

REMARKS: (*) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

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John R. Kuehn 8/1/89







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DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001 T CHLOR RES ug/l GRAB 2 per CYCLE	EFFLUENT 001 FREE AVL CHL ug/l GRAB 2 per CYCLE	EFFLUENT 001 CHLORINE USED lbs/day RECORDED MONTHLY	EFFLUENT 001 AMMONIA (N) mg/l GRAB MONTHLY	EFFLUENT 001 TITANIUM ug/l GRAB MONTHLY	EFFLUENT 001D LITHIUM ug/l MONTHLY COMP. MONTHLY	EFFLUENT 001D BORON ug/l MONTHLY COMP. MONTHLY	EFFLUENT 001D HYDRAZINE ug/l GRAB MONTHLY
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JULY	#	#	#	#	#	#	#	#	
1									
2								7	
3	6	50	6	55	250				
4									
5	6	60	6	60	250				
6									
7	6	35	6	25	250				
8									
9									
10	6	20	6	20	250	**	342	**	530000
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21	6	20	6	<20	250				
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24	6	30	6	20	250			<50	
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26	6	25	6	<20	250				
27									
28	6	20	6	<20	250				
29									
30									
31	6	<20	6	<20	250				

MONTHLY AVG	30	27.1	229.75					
MONTHLY HIGH	60	60	250					
MONTHLY LOW	<20	<20	7					

TIMES EXCEEDED	D MAX 200 =0	30 DAY AV 200	NO LIMIT	6M-MEAN 4.44=0	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED	I MAX 200 =0	=0		D MAX 17.8 =0				
TIMES EXCEEDED		D MAX 500 =0		I MAX 44.4 =0				

REMARKS: (*) Number of Samples taken during the day. ** Boron and Lithium analyzed on June, 1989 monthly composite.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE
John H. Krenn 8/17/89



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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFF 001N=>003 TOTL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	EFF 001N=>003 FECAL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	EFF 001N=>INTK TOTL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	EFF 001N=>INTK FECAL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

MONTHLY AVG	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE
MONTHLY HIGH				
MONTHLY LOW				

TIMES EXCEEDED	80% SMPLS>1K	MEAN>200=	80% SMPLS>1K	MEAN>200=
TIMES EXCEEDED	=	90% SMPLS>400	=	90% SMPLS>400
TIMES EXCEEDED	1 MAX >10K=	=	1 MAX >10K=	=

REMARKS: (*) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

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John R. Krenney 7/17/89



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ENDING 89/07/31

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06

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STATION ANALYSIS UNITS SHPL TYPE FREQ.	INFLUENT OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001C OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001D OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 0016 OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001H OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001I OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001J OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001K OIL & GREASE mg/l GRAB JA/AP/JUL/OCT
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
			<3																												

MONTHLY AVG	NO DISCHARGE												NO DISCHARGE				NO DISCHARGE
MONTHLY HIGH																	
MONTHLY LOW																	

TIMES EXCEEDED	NO LIMIT	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	
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TIMES EXCEEDED																															

REMARKS: (*) Number_of_Samples_taken_during_the_day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE
John R. Krenn 8/17/89



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DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424
PAGE (Q) 2

FACILITY I.D.
3 402003001

YEAR/ MO / DAY
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ENDING 89/07/31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001L OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001M OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001P OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 002 OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 003 OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 004 OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	INFLUENT T NF RESIDUE mg/l 1st FLTR GRAB JA/AP/JUL/OCT	INFLUENT T NF RESIDUE mg/l 2nd FLTR GRAB JA/AP/JUL/OCT
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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MONTHLY AVG																														
MONTHLY HIGH																														
MONTHLY LOW																														

TIMES EXCEEDED	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO AVG 15=0	NO LIMIT	NO LIMIT
TIMES EXCEEDED	D MAX 20 =0	D MAX 20 =0	D MAX 20 =0	D MAX 20 =0	D MAX 20 =0	D MAX 20 =0	D MAX 20 =0		
TIMES EXCEEDED									

REMARKS: (*) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT
John R. Krenn
DATE
8/17/89



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CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	INFLUENT T HF RESIDUE mg/l NET	INFLUENT T CHROMIUM ug/l	INFLUENT COPPER ug/l	INFLUENT NICKEL ug/l	INFLUENT ZINC ug/l	INFLUENT AMMONIA (N) mg/l	EFFLUENT 001 PHENOLIC CMP ug/l (NONCL)	EFFLUENT 001 CHLOR PHENOL ug/l
	GRAB	GRAB	GRAB	GRAB	GRAB	GRAB	GRAB	GRAB
	JA/AP/JUL/OCT	JA/AP/JUL/OCT	JA/AP/JUL/OCT	JA/AP/JUL/OCT	JA/AP/JUL/OCT	JA/AP/JUL/OCT	JA/AP/JUL/OCT	JA/AP/JUL/OCT

JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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MONTHLY AVG																														
MONTHLY HIGH																														
MONTHLY LOW																														

TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	6M-MEAN 222 =0	6M-MEAN 10 =0
TIMES EXCEEDED								D MAX 888 =0	D MAX 30 =0
TIMES EXCEEDED								I MAX 2200 =0	I MAX 70 =0

REMARKS: (*) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE
John R. Krenn 8/7/89



v



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NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001D CHROMIUM ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H T CHROMIUM ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L T CHROMIUM ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F T CHROMIUM ug/l WEEKLY COMP JA/AP/JUL/OCT	EFFLUENT 001D COPPER ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H COPPER ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L COPPER ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F COPPER ug/l WEEKLY COMP JA/AP/JUL/OCT
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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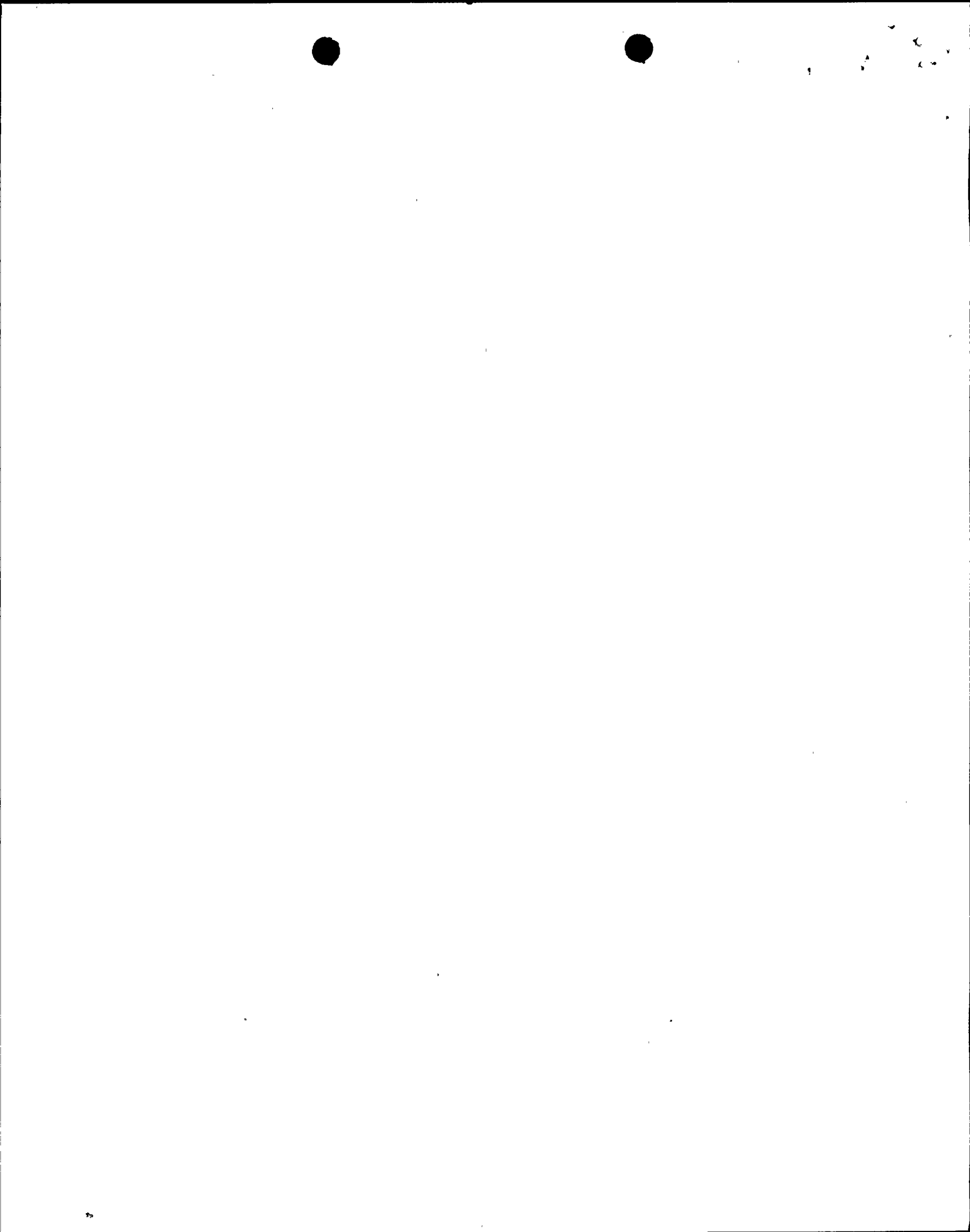
MONTHLY AVG
MONTHLY HIGH
MONTHLY LOW

TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED								
TIMES EXCEEDED								

REMARKS: (*) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE
John R. Kremay 8/17/89



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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001D LEAD ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H LEAD ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L LEAD ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F LEAD ug/l WEEKLY COMP JA/AP/JUL/OCT	EFFLUENT 001D MERCURY ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H MERCURY ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L MERCURY ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F MERCURY ug/l WEEKLY COMP JA/AP/JUL/OCT
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
																	<10	139	<10	<10	2.64	.98	<.1							8	

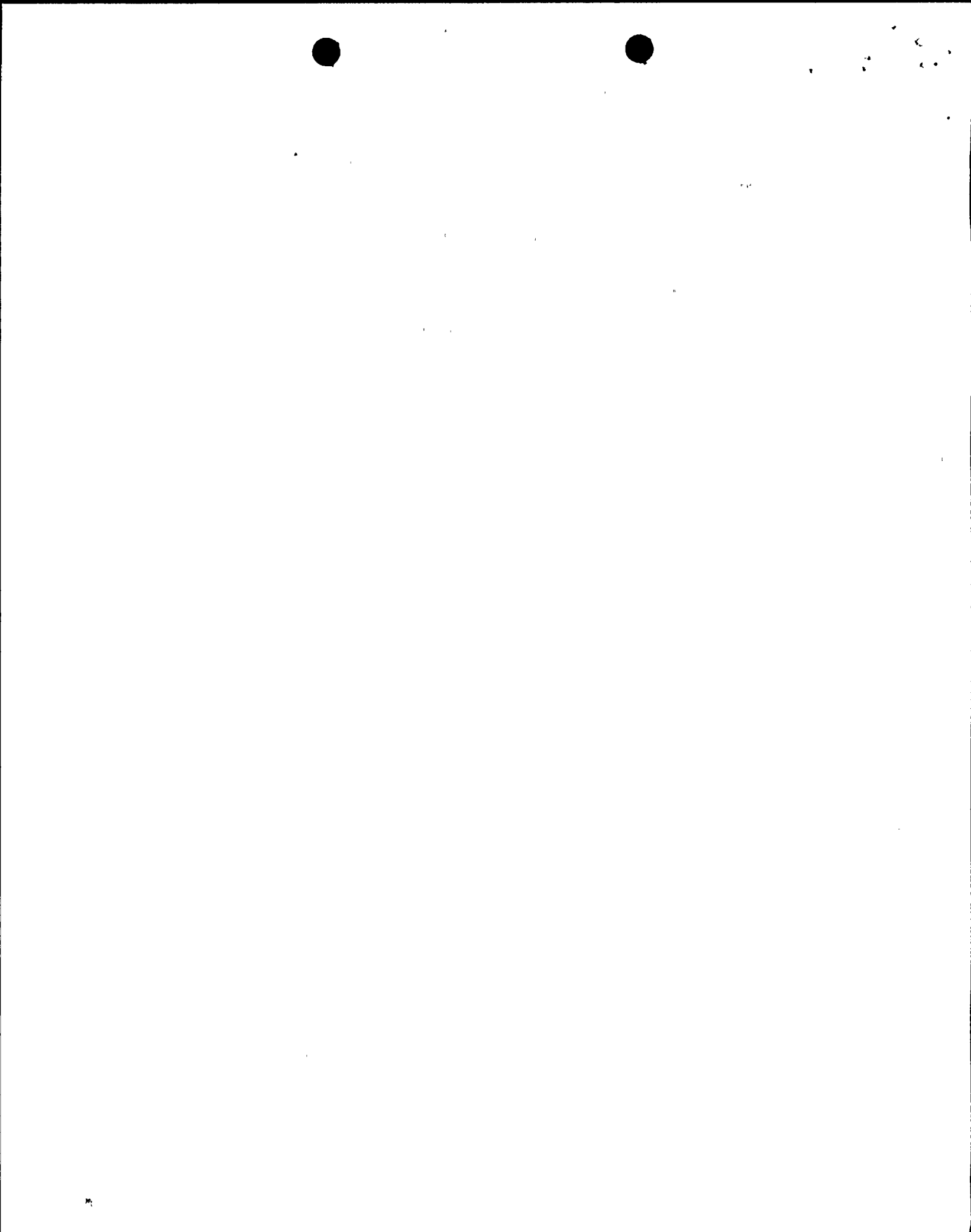
MONTHLY AVG
MONTHLY HIGH
MONTHLY LOW

TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED									
TIMES EXCEEDED									

REMARKS: (*) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

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John R. Kremer 8/17/89



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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001D NICKEL ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H NICKEL ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L NICKEL ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F NICKEL ug/l WEEKLY COMP JA/AP/JUL/OCT	EFFLUENT 001D SILVER ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H SILVER ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L SILVER ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F SILVER ug/l WEEKLY COMP JA/AP/JUL/OCT
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
																	29	187	<16	<16	<1	23	<1								

MONTHLY AVG
MONTHLY HIGH
MONTHLY LOW

TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED									
TIMES EXCEEDED									

REMARKS: (*) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE
John R. Kuehner 8/17/89



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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001D ZINC ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H ZINC ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L ZINC ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F ZINC ug/l WEEKLY COMP JA/AP/JUL/OCT
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
																	88	129	13	247											

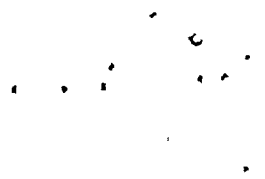
MONTHLY AVG				
MONTHLY HIGH				
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TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED				
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REMARKS: (1) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE
John R. Freeman 8/17/89



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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001D COPPER mg/l 24-HR COMP. METAL CLNG	EFFLUENT 001F COPPER mg/l 24-HR COMP. METAL CLNG	EFFLUENT 001I COPPER mg/l 24-HR COMP. METAL CLNG	EFFLUENT 001L COPPER mg/l 24-HR COMP. METAL CLNG	EFFLUENT 001M COPPER mg/l 24-HR COMP. METAL CLNG
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

MONTHLY AVG	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE
MONTHLY HIGH					
MONTHLY LOW					

TIMES EXCEEDED	NO AVG 1 =	NO AVG 1 =	NO AVG 1 =	NO AVG 1 =	NO AVG 1 =
TIMES EXCEEDED	D MAX 1 =	D MAX 1 =	D MAX 1 =	D MAX 1 =	D MAX 1 =
TIMES EXCEEDED					

REMARKS: (*) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE
John R. Krumm 8/17/89



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DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
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YEAR/ MO / DAY
ENDING 89/07/31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001D IRON mg/l 24-HR COMP. METAL CLNG	EFFLUENT 001F IRON mg/l 24-HR COMP. METAL CLNG	EFFLUENT 001I IRON mg/l 24-HR COMP. METAL CLNG	EFFLUENT 001L IRON mg/l 24-HR COMP. METAL CLNG	EFFLUENT 001M IRON mg/l 24-HR COMP. METAL CLNG
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JULY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

MONTHLY AVG	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE
MONTHLY HIGH					
MONTHLY LOW					

TIMES EXCEEDED	MO AVG 1 =	MO AVG 1 =	MO AVG 1 =	MO AVG 1 =	MO AVG 1 =
TIMES EXCEEDED	D MAX 1 =	D MAX 1 =	D MAX 1 =	D MAX 1 =	D MAX 1 =
TIMES EXCEEDED					

REMARKS: (#) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER

JAMES D. SHIFFER

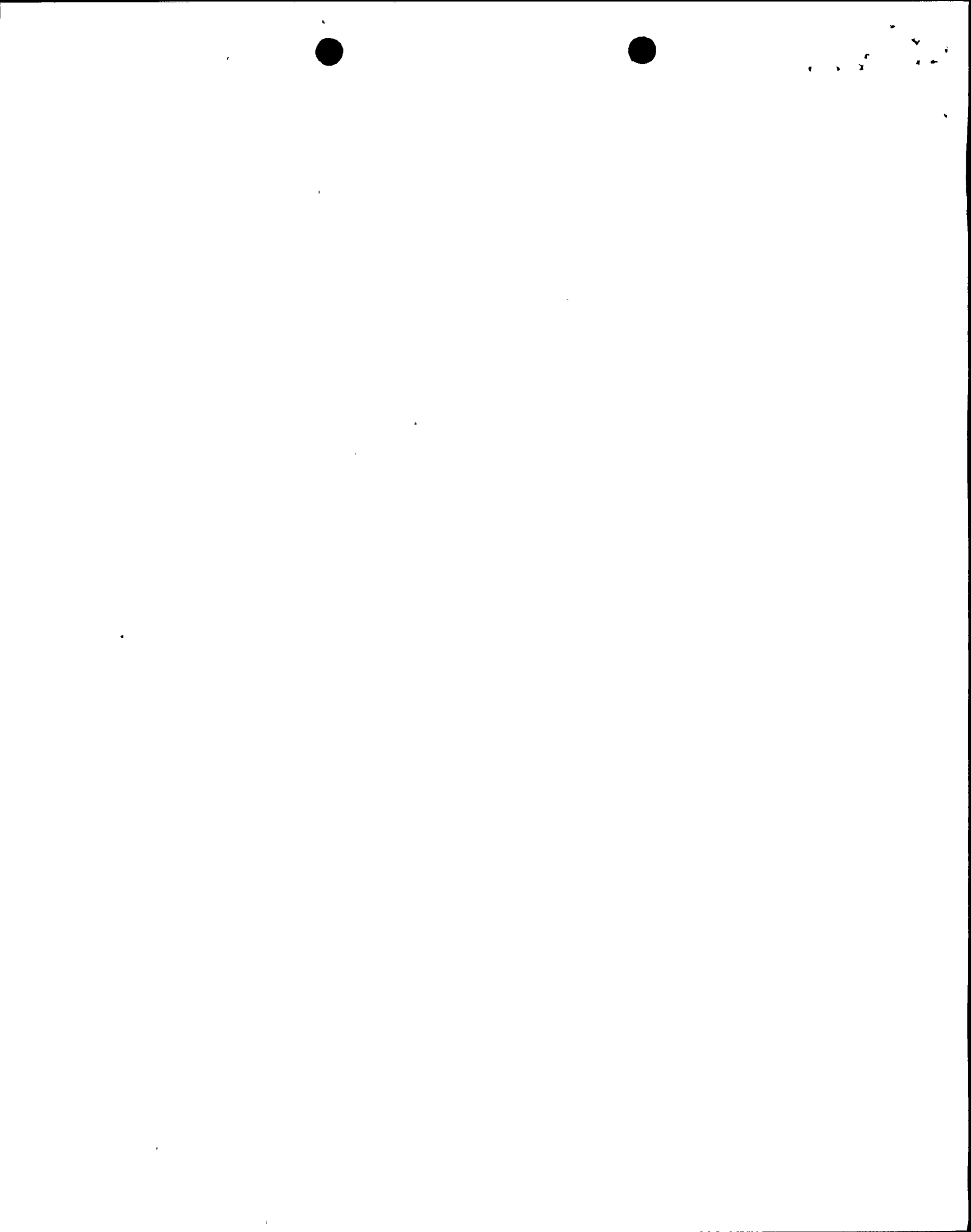
SIGNATURE OF AUTHORIZED AGENT DATE

Joan R. Krenn 8/17/89



APPENDIX 2

Static Bioassay
July 10, 1989



PACIFIC GAS & ELECTRIC COMPANY
 DEPARTMENT OF ENGINEERING RESEARCH
 DIABLO CANYON BIOLOGICAL LABORATORY
 STATIC BIOASSAY REPORT SHEET

ASSAY NO. 153-N

One Concentration

TEST ORGANISM DATA

TEST SPECIES Red abalone

SOURCE Abalone Farm Inc.

AVERAGE LENGTH 19.6mm RANGE 12-24 mm

ACCLIMATION TIME 24th TEMPERATURE ambient

WATER SOURCE Bio Lab seawater pump

DATE STARTED 10 July '89

VOLUME/DEPTH OF TEST SOLUTION 19 L. / 20 cm

TYPE OF AERATION Ring Compressor

TEST SOLUTION DATA

SOURCE OF TEST SOLUTION DOPP Discharge 2-1

DATE/TIME SAMPLED

10 July '89 / 0955

TIME STARTED 1300 HRS.

RENEWAL OF TEST SOLUTION AT HR. INTERVALS

NUMBER OF ORGANISMS PER CONCENTRATION 30

DILUTION WATER SOURCE Bio Lab Sea water pump

TEST CONCENTRATIONS

<u>0 HOURS</u>	<u>100%</u>	<u>CONTROL</u>	<u>INITIALS</u>
TEMP.	<u>14.6°C</u>	<u>14.6°C</u>	<u>CMJ</u>
D.O.	<u>8.0</u>	<u>8.0</u>	
PH	<u>8.1</u>	<u>8.1</u>	
SALINITY/HARDNESS	<u>-</u>	<u>-</u>	
<u>24 HOURS</u>			
ORGANISMS SURVIVING	<u>30</u>	<u>30</u>	<u>CMJ</u>
% SURVIVAL	<u>100%</u>	<u>100%</u>	
TEMP.	<u>14.4°C</u>	<u>14.4°C</u>	
D.O.	<u>7.6</u>	<u>7.4</u>	
PH	<u>7.1</u>	<u>6.8</u>	
<u>48 HOURS</u>			
ORGANISMS SURVIVING	<u>30</u>	<u>30</u>	<u>CMJ</u>
% SURVIVAL	<u>100%</u>	<u>100%</u>	
TEMP.	<u>16.4°C</u>	<u>16.4°C</u>	
D.O.	<u>7.4</u>	<u>7.4</u>	
PH	<u>7.8</u>	<u>7.9</u>	
<u>72 HOURS</u>			
ORGANISMS SURVIVING	<u>30</u>	<u>30</u>	<u>CMJ</u>
% SURVIVAL	<u>100%</u>	<u>100%</u>	
TEMP.	<u>13.4°C</u>	<u>13.4°C</u>	
D.O.	<u>8.0</u>	<u>7.9</u>	
PH	<u>7.6</u>	<u>7.5</u>	
<u>96 HOURS</u>			
ORGANISMS SURVIVING	<u>30</u>	<u>30</u>	<u>CMJ</u>
% SURVIVAL	<u>100%</u>	<u>100%</u>	
TEMP.	<u>12.9°C</u>	<u>12.9°C</u>	
D.O.	<u>8.0</u>	<u>8.0</u>	
PH	<u>7.9</u>	<u>8.0</u>	
SALINITY/HARDNESS	<u>-</u>	<u>-</u>	

TU: No mortalities
 Procedure No. 2.3
 Temp. Probe. No. 237
 Cal. Due Date 05 Aug '89

TESTED BY CMJ
 Reviewed by Jim Kelly



APPENDIX 3

Aerial Kelp Photography
June 29, 1989



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Aerial Photography of Kelp Beds
June 29, 1989

Spatial and temporal variation in kelp beds offshore of Diablo Canyon Power Plant is documented using aerial infrared (IR) photography. Kelp photography is conducted in February, June, and October. Kelp flights for the June sampling period were made on June 29, 1989, between 0928 and 0935 Pacific Daylight Time.

IR photography is conducted using Kodak IR #2443 film. Altitude of the aircraft was 4,500 feet above mean sea level, and photographs are at a scale of 1 inch equal to 750 feet.

The IR film is duplicated in 35mm slide format for reporting purposes. Slides are numbered, and a flight index map is also included (Figure 1). Processed film is archived at Pacific Gas & Electric's Technical and Ecological Services Oceanographic Laboratory in San Ramon, California.



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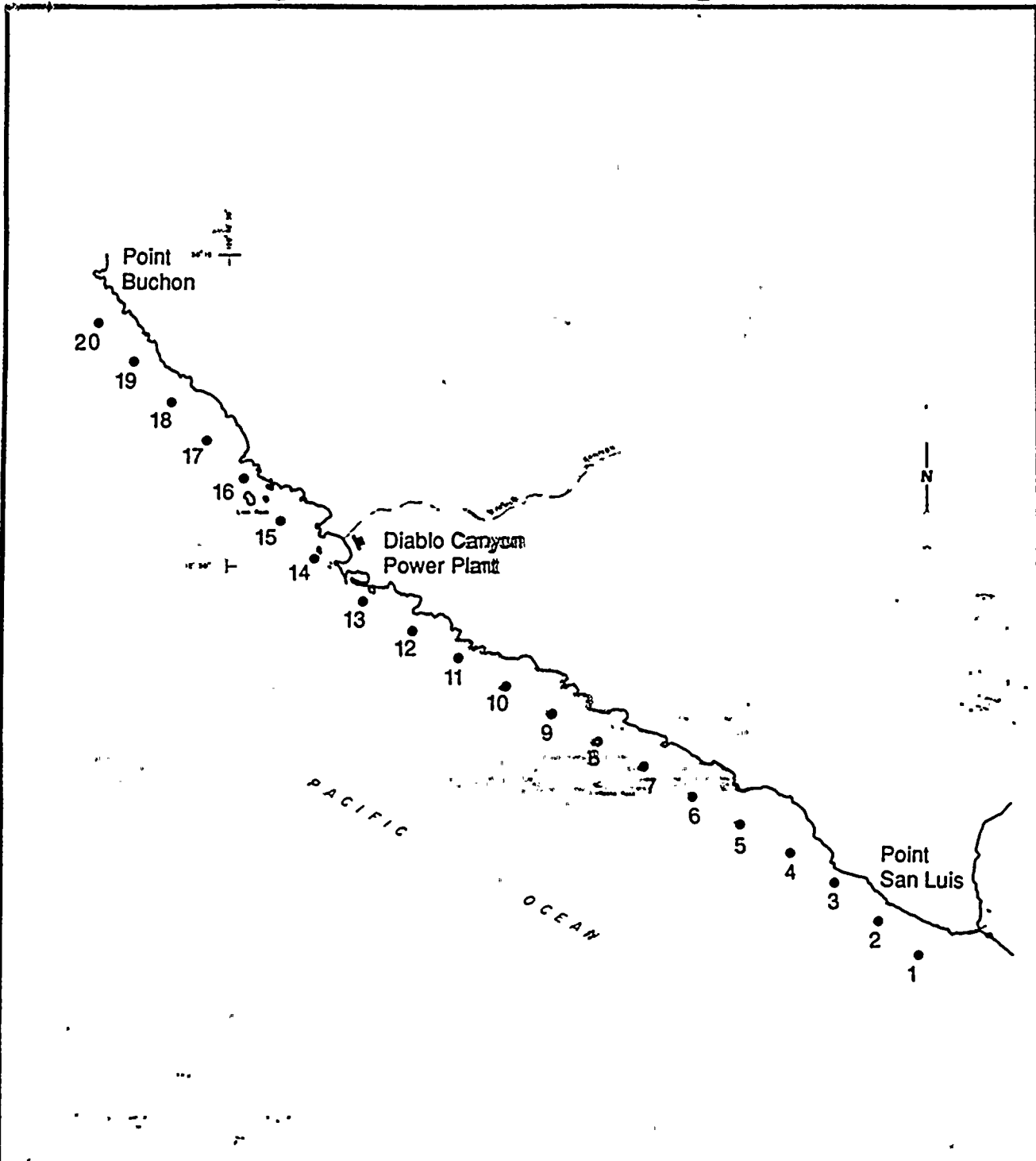


FIGURE 1. Flight Path for Diablo Canyon Kelp Survey June 29, 1989



Handwritten marks and scribbles in the top right corner.